UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,165	09/19/2000	Kohei Abe	197336US2S	5491

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ART UNIT	PAPER NUMBER
2111	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 January 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☒ Claim(s) *19-21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hauser

et al.

With regard to claims 1 and 8, Hauser et al. discloses a queue control device for

ATM comprising a "first storage area" (cell buffer 128, Fig. 4) for storing a first queue

(see Fig. 6, for example) including a plurality of "elements" (cells) having an "address"

(cell number) specifying the next "element" (cell), and a "second queue" (see Fig. 6, for

example) including a plurality of "elements" (cells) having an "address" (cell number)

specifying the next "element" (cell); a "second storage area" (RAM 132, 1140, 2142) for

storing "first pointer information" (queue 1 descriptor, Fig. 6, for example) and "second

pointer information" (queue 2 descriptor, Fig. 6, for example), the "first pointer

information" being a "head address" (head) in the first queue, and the "second pointer

information" being a "tail address" (tail, Fig. 6); and a "controller" (queue manager 308,

Fig. 4, for example) for controlling the "first and second storage areas" (cell buffer 128

and pointer RAM 132, 1140, 2142) to set not only an address specifying the head

element in the second queue in the tail element in the first queue stored in cell buffer

128 but also an address specifying the tail element in the first queue in the tail element

in the second queue and for controlling the first and second queues according to queue

1 and 2 descriptors stored in pointer RAM 132, 1140, 2142. In another words, in

Hauser et al., one queue number is able to point to a second queue number, and the

list descriptor holds the queue number of the first entry, or head, of the list and the last

entry, or tail, of the list. The queue number of the head of the list is used to index into

the list pointers and read the queue number of the second entry in the list. Likewise, the

queue number of the second entry is used to index into the list pointers and read the

queue number of the third entry, and so on until the queue number read is equal to the

queue number of the last entry, or tail of the list. Therefore, it is clear that in Hauser et

al., in order to add a queue to a list, the queue number of the queue being added to the

list is written to the list pointer location indexed by the present tail of the list. That is

when queue 2 is added for immediate transmission to the list, the address of the head

of queue 2 is written to the present tail of queue 1. Also, since queue 1 and queue 2

share the same transmission channel and buffer pool 128, the address specifying the

tail of queue 1 is also the address of the tail of queue 2 after all cells of queue 1 are

transmitted out. The queue manager 308 controls queue 1 and queue 2 according to

the head and tail stored in RAM 132, 1140, 2142.

With regard to claims 2, 3, 9, and 10, in Hauser et al., it is clear that when queue 1 is not present the address of the head of queue 2 is stored in RAM 132, 1140, 2142 is set in queue 1 descriptor, since queue 1 and queue 2 share the same transmission channel and pool buffer. In addition, it is clear that an indicator must be placed in the address of the tail of queue 2 indicating that the tail of queue 2 is the last one to be transmitted in the absence of queue 1. And vise versa.

With regard to claims 5 and 11, if there is no other special priority is set forth in the cell and list managers, and in view of the work flow mentioned above, it is clear that queue 1 is assigned a higher priority for transmission.

With regard to claims 6 and 12, it is clear that with any known ATM (Asynchronous Transfer Mode) including the ATM used in Hauser et al., cell buffer can store a plurality of virtual channel according to each of the cells.

With regard to claims 7 and 13, the cell manager 308 is connected to the cell processor 302, which produce virtual channels.

With regard to claims 14-18, one practicing the queue control device set forth by Hauser et al. and specifically discussed above would have performed the same steps recited in claims 14-18.

Response to Arguments

Applicant's arguments filed 1/02/2004 have been fully considered but they are not persuasive.

At the outset, Applicants are reminded that claims subject to examination will be given their broadest reasonable interpretation consistent with the specification. *In re Yamamoto*, 740 F2.d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984). Applicants are also reminded that claimed subject matter not the specification, is the measure of the invention. Disclosure contained in the specification can not be read into the claims for the purpose of avoiding the prior art. *In re Sporck*, 55 CCPA 743, 386 F.2d, 155 USPQ 687 (1986).

With this in mind, the discussion will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitations that are not in the claims or any arguments that are irrelevant and/or do not relate to any specific claimed language will not be warranted.

The Hauser et al. rejection :

With regard to claims 1, 8, and 14 (with claims 2-7, 9-13, and 15-18 stand or fall together), Applicants argued that, "Figure 6 of Hauser et al. depicts queues 1, 2, and 3 as being independent from one another" and that "Hauser et al. does not clearly describe connecting of a plurality of queues." Contrary to Applicants' argument, since queue 1 and queue 2 <u>share the same transmission channel</u> and <u>buffer pool 128</u>, the address specifying the tail of queue 1 is also the address of the tail of queue 2 after all cells of queue 1 are transmitted out. From at least Fig. 6, for example, it is clear that the head address of queue 2 is stored in a tail element of queue 1, and the tail address of queue 1 is stored in a tail element of queue 2. In another word, in Hauser et al., queue
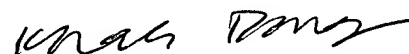
1, 2, and 3 are operatively "connected" for sequential transmission over the same transmission channel. It is also clear that in Hauser et al., in order to add a queue to a list, the queue number of the queue being added to the list is written to the list pointer location indexed by the present tail of the list. That is when queue 2 is added for immediate transmission to the list, the address of the head of queue 2 is written to the present tail of queue 1.

Allowable Subject Matter

Claims 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.

Khanh Dang
Primary Examiner